WHAT IS CLAIMED IS:

1. An imaging sensor which includes:
    a sensor array segmented into plural disjoint segments;
    a respective plurality of output pipelines, one of said output pipelines corresponding to each of said plural segments of the sensor array; and
    means for duplicating image data for an overlap region at each boundary between segments.

2. An imaging sensor according to Claim 1, wherein said means for duplicating image data comprises charge or voltage duplicating circuitry that obtains multiple outputs for each pixel in the overlap region, and wherein said duplication circuitry provides each of the multiple outputs to individual ones of said output pipelines that border on the overlap region.

3. An imaging sensor according to Claim 1, further comprising a respective plurality of processors, each processor coupled to a respective one of the output pipelines, and wherein said means for duplicating includes an output pipeline for outputting pixel values of pixels in the overlap region to an intermediate buffer, the intermediate buffer providing duplicate pixel values to each processor whose segment borders the overlap region.

4. An imaging sensor according to Claim 3, wherein the intermediate buffer is provided off-chip from the sensor array.

5. An imaging sensor according to Claim 1, further comprising a respective plurality of processors, each processor coupled to a respective

one of the output pipelines, and wherein said means
for duplicating comprises a communication link
between processors that border the overlap region,
and wherein duplicate pixels are communicated
5   between processors over the communication link.

       6.   A method in an imaging sensor which
includes a sensor array segmented into plural
disjoint segments including at least a first segment
10   and a second segment separated by a boundary, the
method comprising the step of duplicating image data
for an overlap region at the boundary.

       7.   A method according to Claim 6, wherein
15   said step of duplicating image data further
comprises the steps of:
       storing charges or voltages from a non-
overlap region of the first segment into a output
pipeline;
20   storing charges or voltages from the
overlap region of the first segment and the second
segment into the output pipeline; and
       providing charges or voltages from the
output pipeline to a processor.
25

       8.   A method according to Claim 6, wherein
said step of duplicating image data further
comprises the steps of:
       storing charges or voltages from a non-
30   overlap region of the first segment into a pipeline;
       sending charges or voltages from the
overlap region of the first segment and the second
segment to a shift out line;
       storing charges or voltages from the shift
35   out line to an intermediate buffer; and

providing charges or voltages from the
pipeline and from the intermediate buffer to a
processor.

9.   A method according to Claim 8, wherein
the intermediate buffer is provided off-chip from
the sensor array.

10.   A method according to Claim 6, wherein
said step of duplicating image data further
comprises the steps of:

storing charges or voltages from the first
segment into a pipeline;

providing charges or voltages from the
pipeline to a first processor, the first processor
for processing pixel data for the first segment; and

communicating pixel data for the overlap
region between the first processor and a second
processor, the second processor for processing pixel
data for the second segment.